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Reference Materials

Title: Relationships between sleep quality, depressive symptoms and MCI diagnosis: A path analysis

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Abstract:

Background

This study examined the complex relationships between sleep quality, depressive symptoms, and cognitive decline in older adults. We hypothesised that older age, lower education and greater medical comorbidities would each be associated with increased mild cognitive impairment (MCI) diagnosis risk through indirect effects via poorer sleep quality, and greater depressive symptomology.

Methods

540 adults 44 years and over were recruited at the Brain and Mind Centre, Sydney, Australia. Participants underwent comprehensive psychiatric, neuropsychological, and medical assessment. Subjective sleep quality, current depressive symptomatology, and current medical burden were assessed.

Results

There were significant indirect effects of each of age, comorbidities and education, that operated via both sleep and depression. Younger age, greater comorbidities and fewer years' education each predicted greater chance of MCI diagnosis via poorer sleep and in turn higher depressive symptomatology. Additionally, there was a significant direct effect of older age on MCI.

Limitations

The current study is cross-sectional and cannot determine whether poorer sleep quality and greater depressive symptomatology precede or arise as a result of the onset of cognitive decline in later-life. A longitudinal design may allow further explication of these relationships.

Key findings:

Both sleep and depression are linked with cognitive decline in older adults, with sleep disturbance appearing to predict depressive symptoms. These findings have implications for the management of MCI.

Both greater depression symptomatology and sleep disturbance were shown to predict the risk of MCI diagnosis, with this effect strongest in those that are younger.

Improved early detection and treatment of sleep problems in older adults may help prevent depressive symptom manifestation or exacerbation, in turn potentially reducing the risk of subsequent cognitive decline.